DETAILED ACTION

This Office Action is in response to Appeal Brief filed April 23, 2010. The finality of claims 1-9 have been withdrawn. Claims 1-9 are presented for further examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al. (US Patent 5,905,897) in view of Kingsbury et al. (hereinafter "Kingsbury", US Patent Publication 2003/0061395 A1).

As per claim 1, Chou discloses a method for using a computer to assist a particular data storage machine in posting a message on a message list stored in a memory, said message list being accessible to a plurality of processors, said method comprising:

- Selecting a new-message slot (column 3, lines 3-5, 11-16, column 4, lines 42-45, 66-67; The interrupt controller has pending registers in which interrupt requests are stored);

- Placing said message in said new-message slot (column 5, lines 30-40; Interrupt requests are placed in the pending registers of the interrupt controller).
- Modifying said new-message slot to specify an intended recipient of said message, said intended recipient being selected from said plurality of processors (column 3, lines 11-16, column 4, lines 50-60, column 5, lines 3-6, 52-64; The destination register, vector register, and priority register associated with the interrupt requests specifies the processor that the interrupt request is intended).

Chou does not explicitly disclose:

- Receiving, from one of a plurality of processors, a message to be posted on said message list, said message having an intended recipient selected from said plurality of processors having access to said message list, wherein said message list includes messages having different intended recipients;
- Selecting a new message to be posted on said message list;
- Said intended recipient being selected from said plurality of processor having access to said message list.

However, in an analogous art, Kingsbury teaches a multiprocessor node having a shared local memory (message list) that stores a mailbox data structure for messages received for a plurality of processor. The memory (message list) is divided into portions to support different mailbox structures (message slots) for different processors receiving messages. A mailbox data structure (message slot) serves as a receiving area for messages being sent to specific processors. The mailbox has an array of message

slots for receiving and storing messages for particular processors (paragraphs [0029, 0032, 0038]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Kingsbury message list in Chou's method enabling nodes to pass messages to each other.

As per claim 2, Chou does not explicitly discloses the method of claim 1 further comprising inserting said new-message slot into said message list, said message list including a first existing-message slot having a pointer to a second existing-message slot.

However, Kingsbury teaches availability indicators that indicate if a message slot is available to receiving messages, if a message is present in a message slot, and that a message is no longer present in the message slot. Indicators also show the number of slots filled or currently filling as well as a full mailbox (paragraphs [0013-0014, 0034]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Kingsbury's pointer in Chou's method in order to determine available message slots.

As per claim 7, Chou does not explicitly discloses the method of claim 1 further comprising updating a message directory to indicate the presence of said new-message slot in said message list, said message directory being accessible to said plurality of processors.

However, in an analogous art, Kingsbury teaches indicators examined to determine whether a received message in the mailbox (paragraphs [0034, 0045]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Kingsbury updating message directory in Chou's method to indicate a new message indicating the number of slots either filled or currently filling or if all slots are full so the message is not sent to the mailbox.

Allowable Subject Matter

3. Claims 3-6, 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA N. BURGESS whose telephone number is (571)272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Barbara N Burgess/
Examiner, Art Unit 2457

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Examiner
Art Unit 2457

July 4, 2010

/Barbara N Burgess/

Examiner, Art Unit 2457